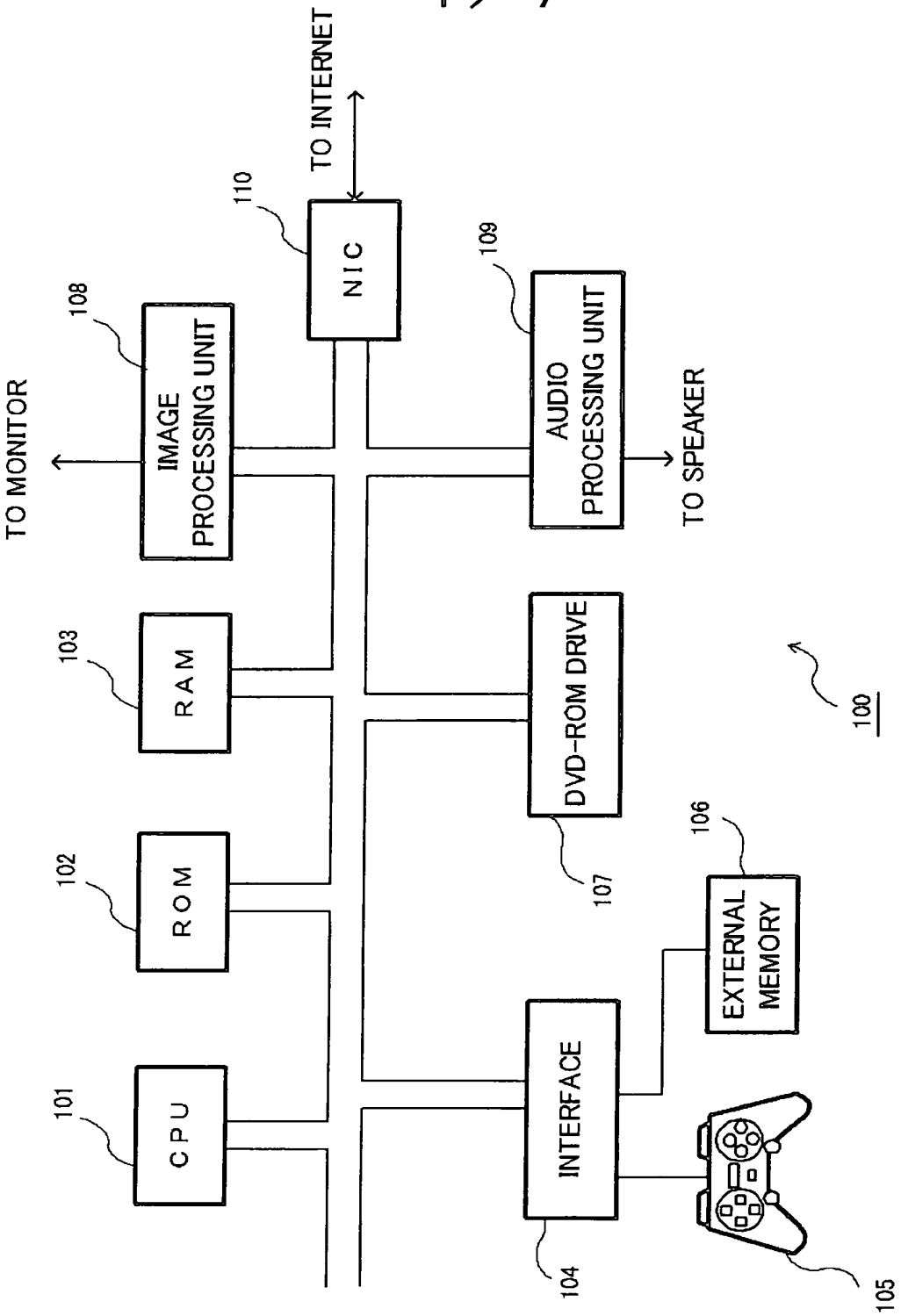
TO INTERNET
110
NIC
108
IMAGE PROCESSING UNIT
TO MONITOR
109
AUDIO PROCESSING UNIT
TO SPEAKER
103
RAM
DVD-ROM DRIVE
102
ROM
107
106
EXTERNAL MEMORY
101
CPU
INTERFACE
104
105
100

FIG. 1

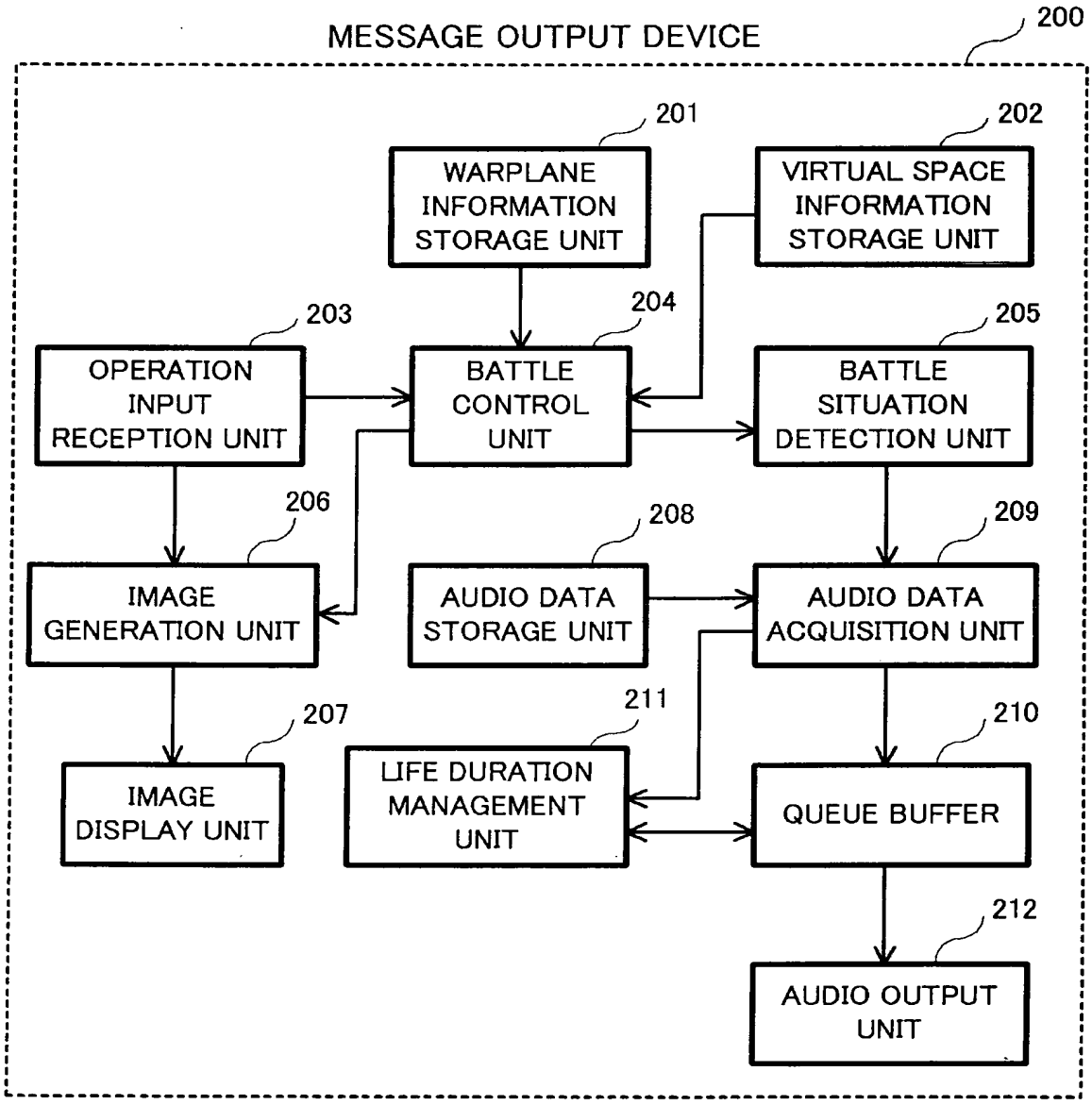
MESSAGE OUTPUT DEVICE
200
201
WARPLANE INFORMATION STORAGE UNIT
202
VIRTUAL SPACE INFORMATION STORAGE UNIT
203
OPERATION INPUT RECEPTION UNIT
204
BATTLE CONTROL UNIT
205
BATTLE SITUATION DETECTION UNIT
206
IMAGE GENERATION UNIT
208
AUDIO DATA STORAGE UNIT
209
AUDIO DATA ACQUISITION UNIT
207
IMAGE DISPLAY UNIT
211
LIFE DURATION MANAGEMENT UNIT
210
QUEUE BUFFER
212
AUDIO OUTPUT UNIT

FIG. 2

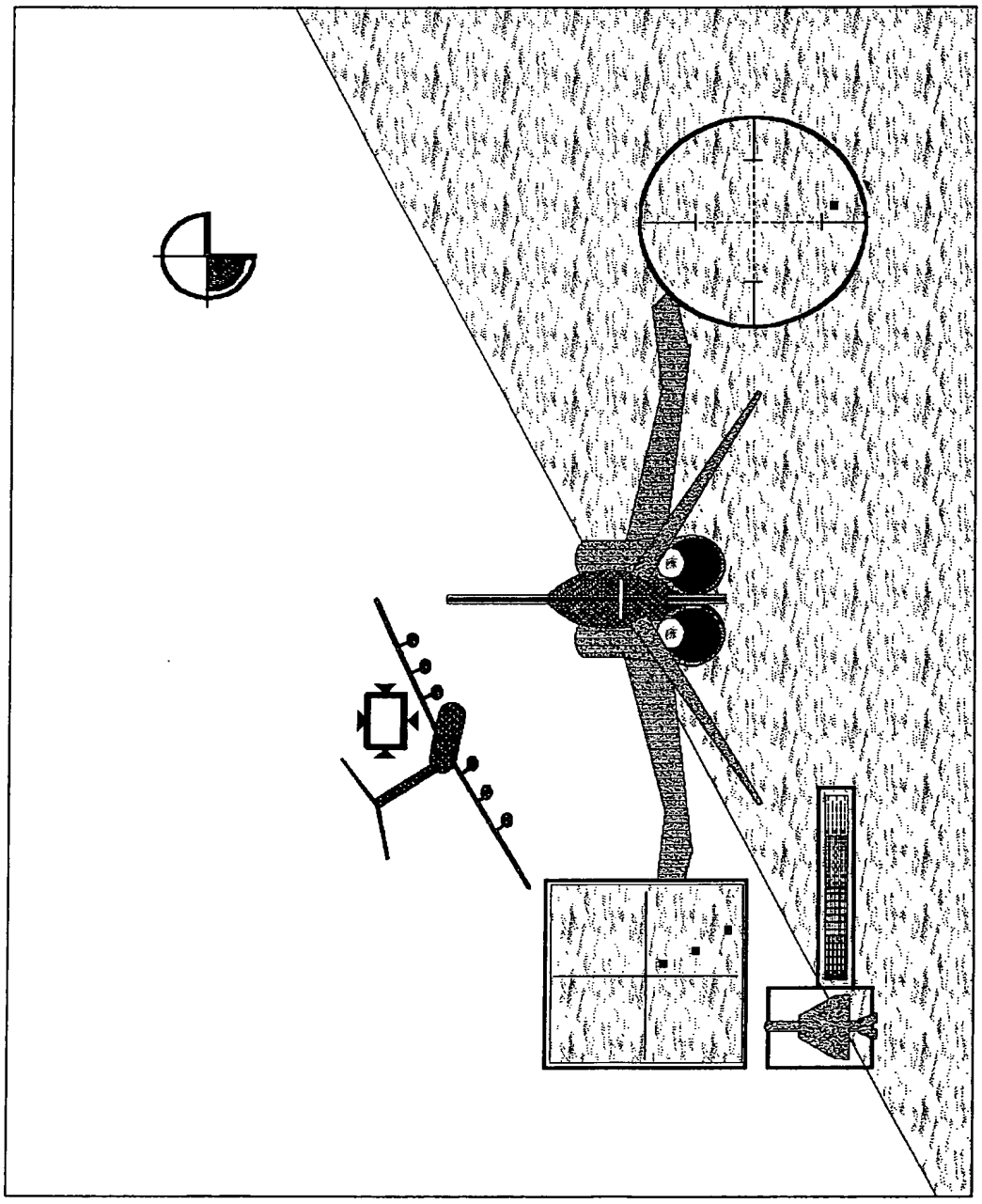

FIG. 3

DATA ID	PRIORITY ORDER	LIFE DURATION TIME	CONTENT	・・・
123456	1	—	"TIME'S UP IN FIVE MINUTES!"	・・・
123457	2	—	"ENEMY VEHICLE GOES SOUTH!"	・・・
123458	1	—	"OUR BUDDY'S SHOT DOWN ENEMY PLANE!"	・・・
⋮	⋮	⋮	⋮	⋮

FIG. 4A

DATA ID	PRIORITY ORDER	LIFE DURATION TIME	CONTENT	・・・
234567	5	1. 5	"WE CAN GO ON!"	・・・
234578	4	2. 0	"THEY'VE GOT QUITE A SKILL!"	・・・
234579	6	3. 0	"IT FEELS LIKE WE'RE GETTING INTO THE SWING OF IT!"	・・・
234580	5	1. 5	"OH MY GOSH!"	・・・
234581	4	3. 0	"WE CAN'T CATCH UP!"	・・・
234582	6	2. 0	"THE DRILLS ARE PAYING OFF!"	・・・
⋮	⋮	⋮	⋮	⋮

FIG. 4B

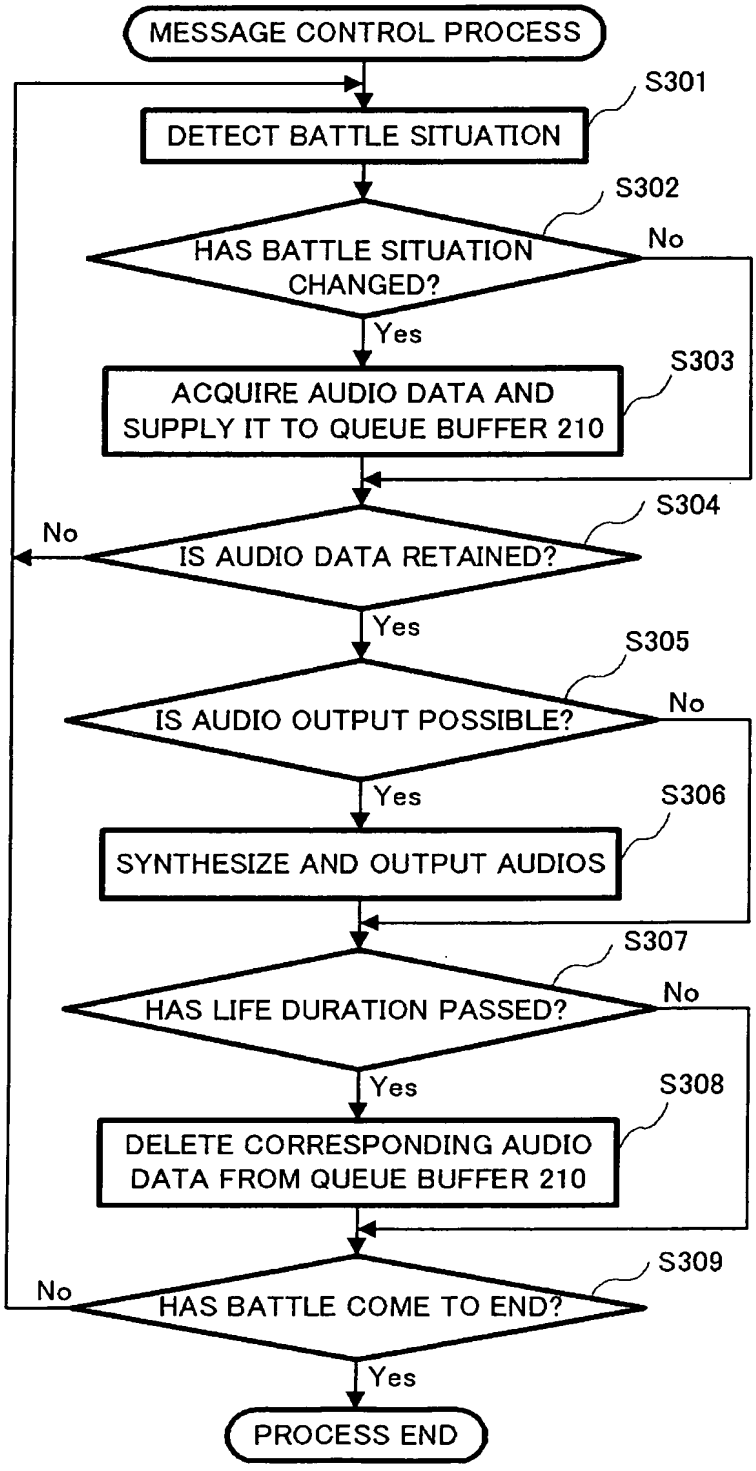
MESSAGE CONTROL PROCESS
S301
DETECT BATTLE SITUATION
S302
HAS BATTLE SITUATION CHANGED?
No
Yes
S303
ACQUIRE AUDIO DATA AND SUPPLY IT TO QUEUE BUFFER 210
S304
No
IS AUDIO DATA RETAINED?
Yes
S305
IS AUDIO OUTPUT POSSIBLE?
No
Yes
S306
SYNTHESIZE AND OUTPUT AUDIOS
S307
HAS LIFE DURATION PASSED?
No
Yes
S308
DELETE CORRESPONDING AUDIO DATA FROM QUEUE BUFFER 210
S309
No
HAS BATTLE COME TO END?
Yes
PROCESS END

FIG. 5

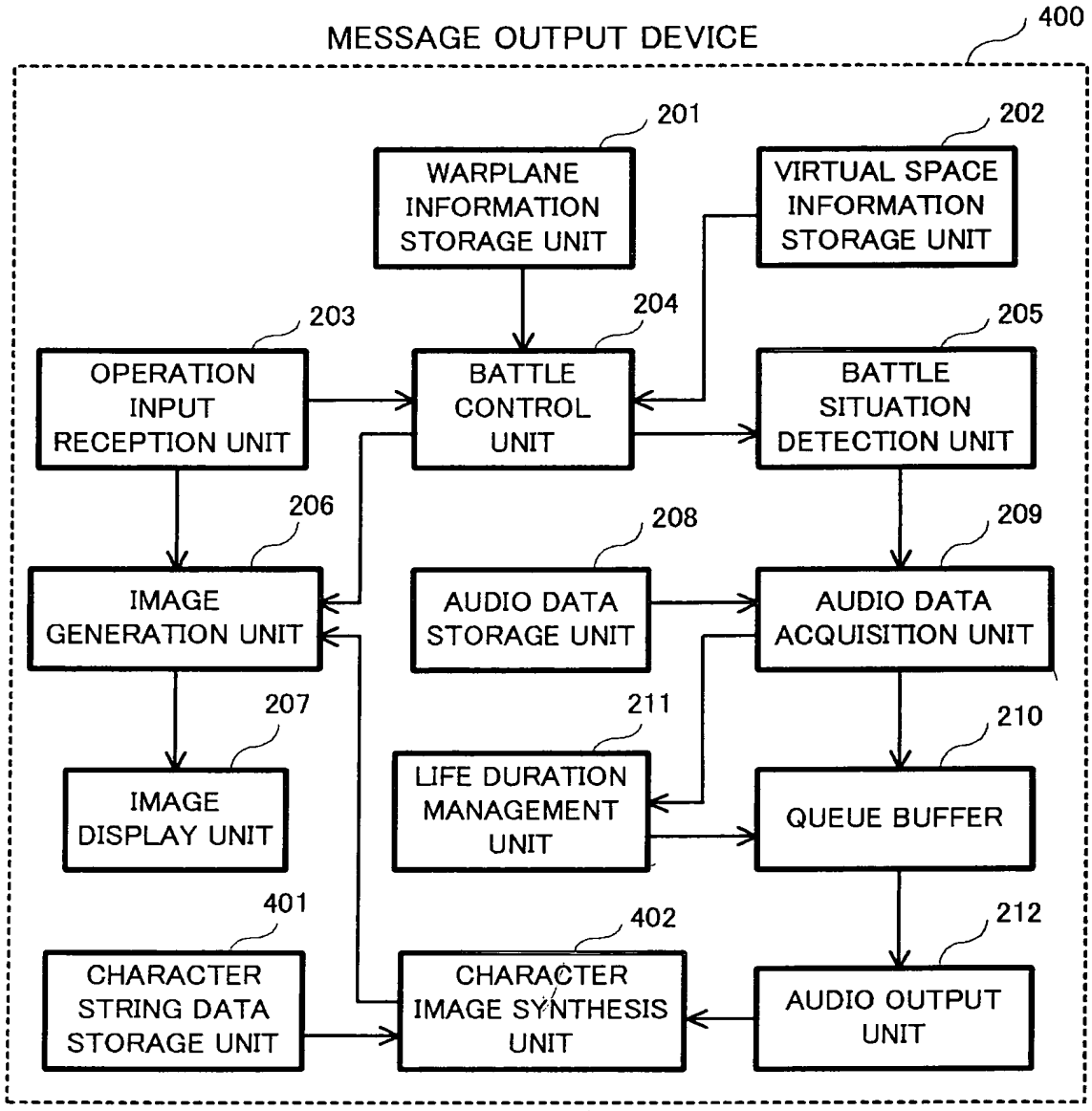
MESSAGE OUTPUT DEVICE
400
201
WARPLANE INFORMATION STORAGE UNIT
202
VIRTUAL SPACE INFORMATION STORAGE UNIT
203
OPERATION INPUT RECEPTION UNIT
204
BATTLE CONTROL UNIT
205
BATTLE SITUATION DETECTION UNIT
206
IMAGE GENERATION UNIT
208
AUDIO DATA STORAGE UNIT
209
AUDIO DATA ACQUISITION UNIT
207
IMAGE DISPLAY UNIT
211
LIFE DURATION MANAGEMENT UNIT
210
QUEUE BUFFER
401
CHARACTER STRING DATA STORAGE UNIT
402
CHARACTER IMAGE SYNTHESIS UNIT
212
AUDIO OUTPUT UNIT

FIG. 6

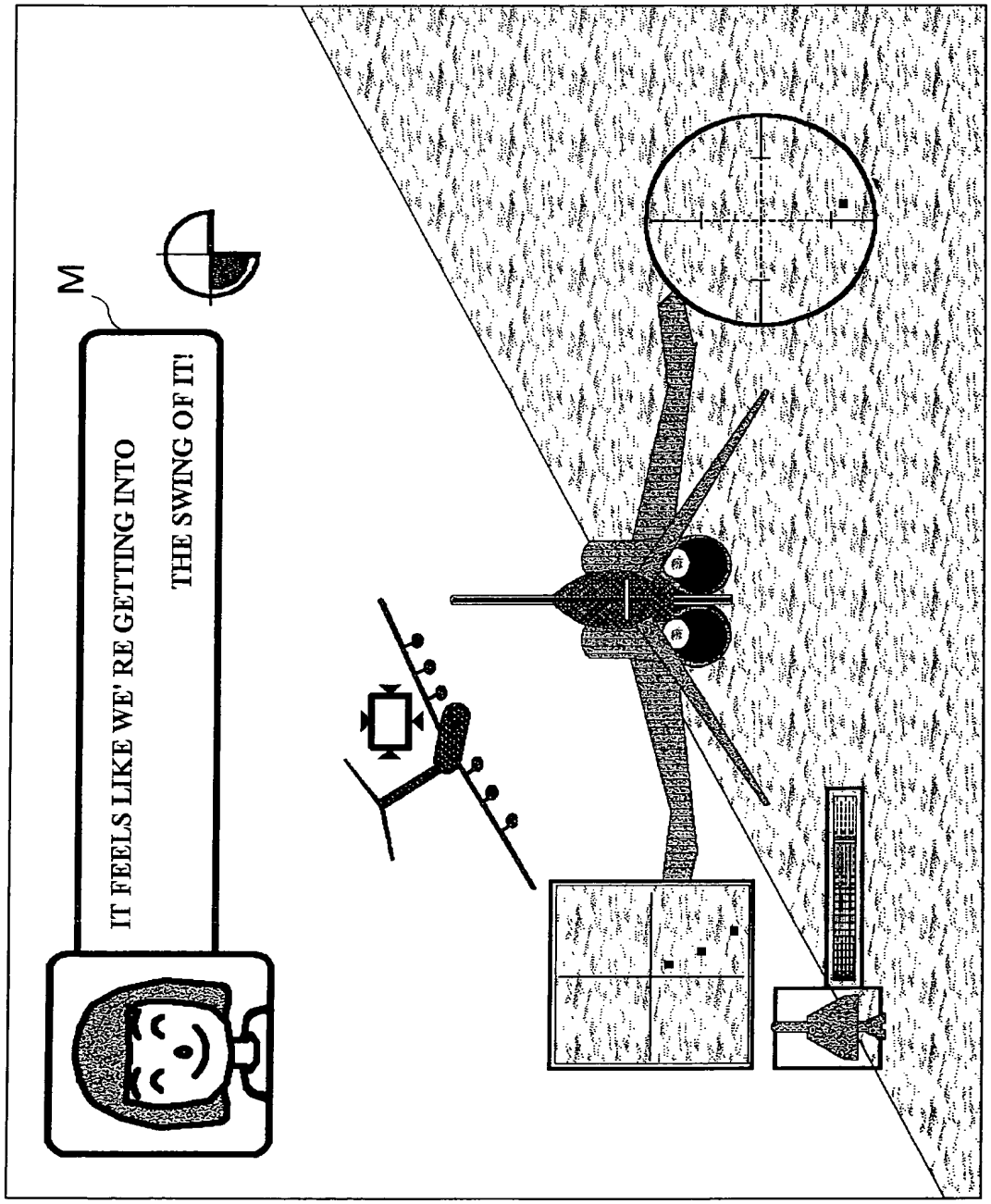

FIG. 7